Problems and Needs

Transportation Issues and Solutions Identified by the Public

Prepared for:

Alaska Department of Transportation & Public Facilities

and

Municipality of Anchorage

Prepared by:

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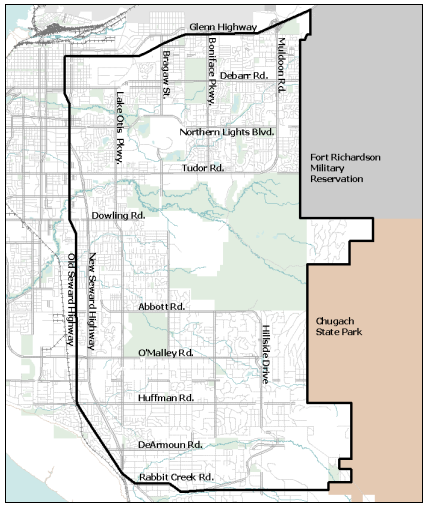
List of Acronyms

AMATS	Anchorage Metropolitan Area Transportation Solutions
BMP	Best Management Practices
DOT&PF	Alaska Department of Transportation & Public Facilities
EAST	East Anchorage Study of Transportation
HDR	HDR Alaska, Inc.
LRTP	Long Range Transportation Plan
MOA	Municipality of Anchorage
RFP	Request for Proposals

1.0 Introduction

The objective of the East Anchorage Study of Transportation . . .

Find long-range solutions to travel mobility within and through East Anchorage.



East Anchorage Study Area

The objective of this report . . .

Report transportation problems and needs identified by the public for improving accessibility, mobility, safety, livability, and congestion in East Anchorage.

Study Overview

State and local officials commissioned the East Anchorage Study of Transportation (EAST) to examine transportation improvements for the East Anchorage study area.[1] The study's objective was to identify current problems; forecast future transportation demands and deficiencies (through the year 2023); and then analyze approaches to improve our ability to travel safely and efficiently within and through the study area. The study focused on accessibility, mobility, and public safety, as well as relieving congestion at major eastside intersections. The end product will provide data and analysis to help plan future public transportation, sidewalk, trail, and road improvements. Findings from EAST will be used, in part, to prepare Anchorage's long-range transportation plan (LRTP).

The following list highlights EAST study phases:

- Transportation and Mobility Data Gathering and Analysis
- Problem Identification and Study Objectives
- Alternative Development and Evaluation
- Study Recommendations

This report is one of three reports intended to identify problems with and needs of the transportation system in East Anchorage. Problems and needs are also discussed in other reports associated with the study.

- The report titled "Background: Existing Conditions, Problems, and Needs" provides a summary of the existing conditions in East Anchorage and reports current problems based on existing data.
- The report titled "Forecast" provides a forecast of future traffic, an analysis of the future traffic conditions, and projection of where future traffic problems will likely occur unless we begin taking steps now to anticipate and change those future conditions.

Report Overview

Because the transportation system is intended to serve Anchorage residents, the solutions for today's and tomorrow's problems must be generated through meaningful public input. Public participation, therefore, is a component of every phase of the study. This document presents a summary of the ideas regarding transportation problems and needs in the study area as articulated by the public. Section 2.0 provides an overview of the study's public outreach, and Sections 3.0, 4.0, and 5.0 provide an overview of comments pertaining to road, public transportation, and pedestrian and bicycle travel, respectively. Comments pertaining to land use are included in each section.

[1] Defined as the geographic area bounded by the Glenn Highway to the north, Rabbit Creek Road to the south, the Old Seward Highway to the west, and the Ft. Richardson Military Reservation and Chugach State Park to the east.

2.0 Public Outreach

The objective of the study's public participation program . . .

Involve the public in meaningful ways to bring good ideas to the forefront and lend credibility to and acceptance of the study results.

Public meetings have been held during the Request for Proposals, Study Plan, and Problems and Needs identification phases of the study.

Introduction

Problems and needs related to transportation in the East Anchorage area have been compiled from various public outreach and research associated with this study. This effort has included the following:

- Statement of Services/Request for Proposals Development (Summer 2000)
- Study Plan Development (Spring 2001)
- EAST Problems and Needs Phase (Spring/Summer 2002)
- Public Opinion Surveys

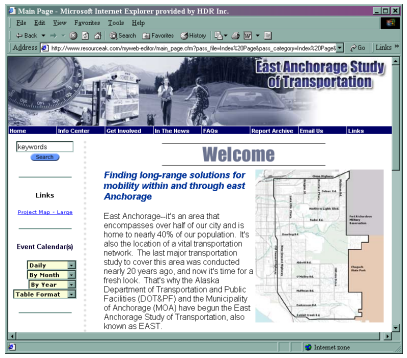
The sections below describe each of these public outreach activities in more detail. Comments received from the public related to transportation problems and improvements needed are presented in Sections 3.0, 4.0, and 5.0. These sections organize comments pertaining to problems and needs by comment themes such as road, public transportation, and pedestrian/bicycle travel. Comments pertaining to land-use are included in each related section. For more information on the public involvement effort, please consult the Public Involvement Plan prepared for the study (HDR 2002).

Statement of Services/Request for Proposals Phase (RFP)

In the summer and fall of 2000, the Alaska Department of Transportation and Public Facilities (DOT&PF) requested public comment on the design of the study's statement of services and request for proposals. People were asked to comment on study boundaries, public involvement strategies, transportation modes to be considered, and the types of analysis, tools, models, or methods to be used. A number of people also commented on problems and needs in the study area. The public involvement record during this phase was examined and comments pertaining to problems and needs are included in the following sections of this document.

Study Plan Development

In the spring of 2001, the DOT&PF and the consultant selected to complete the study (HDR Alaska, Inc.) asked for input on the methodology to use to complete the study. The team presented its strategy for completing the study and asked for feedback at community council meetings, an agency meeting, and a public meeting. Comment was also taken via e-mail, the study website, and by phone and fax. Comments submitted during development of the study plan pertaining to problems and needs in the study area are included in the following sections of this document.



The study website (www.eastanchorage.net) has been an effective tool for capturing public input on problems and needs.

East Anchorage Study of Transportation—Problems and Needs Public Outreach

During the spring and summer of 2002, the EAST study team solicited comment on problems and needs as part of its public participation program. The following list highlights the public participation opportunities used to gather comment:

- **Interviews with Technical Service Providers.** Service providers such as the Anchorage Police Department, Anchorage Fire Department, Municipality of Anchorage (MOA) Traffic Department, Anchorage School District, Alaska Department of Environmental Conservation, MOA Health and Human Services, and Alaska Trucking Association were asked to clarify how their organizations interface with the transportation system and to note problem areas that hamper their ability to provide their service. These entities were also asked to offer ideas for solving these problems.
- **Presentations at Community Councils.** Study updates were provided to the Federation of Community Councils and to two area community councils who requested a presentation. At these meetings ideas pertaining to problems and needs were recorded.
- **Presentations at Community Organization Meetings.** Presentations were also made to community organizations like the Anchorage Trailways and Greenways Coalition and the Chamber of Commerce. Comment on problems and needs was recorded.
- **Open Channel.** Comment was also collected by telephone, fax, and e-mail.
- **Brown Bag Lunches.** Information on transportation problems and needs in the study area was also collected during a series of Brown Bag Lunches. At the time of publication of this report, six such meetings had been held. The purpose of these meetings was to talk with residents about problems, needs, and issues related to a variety of topics such as roads, public transportation, freight, trails, schools, land use, and emergency services. Each meeting featured a guest speaker to frame the discussion.
- **Listening Posts.** Three Listening Posts were scheduled to capture comments on problems and needs from residents not able to attend the weekday lunch meetings. These comment opportunities were scheduled during a Saturday morning (Northway Mall), a Saturday afternoon (Dimond Mall), and a Wednesday evening (St. Mary's Church, corner of Lake Otis Parkway and Tudor Road).
- **Study Hotline.** A telephone voice-mail system (646-2333) was another mechanism for receiving people's comments.
- **Website Bulletin Board and On-line Survey.** The study website (www.eastanchorage.net) was another means of soliciting comment. An on-line questionnaire linked to the study website solicited general information on travel preferences as well as information on problems and needs. The website's on-line discussion (bulletin board) allowed people to post concerns and solutions to transportation issues related to schools, roads, land use, public transportation, trails, and sidewalks.

- **Citizens' Working Group.** A group of interested citizens representing a variety of interests and geographic locations was formed to provide input to the study. The group met in late June to specifically discuss problems and needs in the study area.
- **Agency Working Group.** A group of regulatory agencies and service providers that are dependent on the transportation system, such as the Anchorage Fire Department, Providence Hospital, and Alaska Native Medical Center, met specifically to discuss each organization's mission, relationship to the transportation network, and the problems and potential solutions from their organization's perspective.

Comments provided during these outreach efforts pertaining to problems and needs in the study area are part of the comment summaries in the following sections of this document. A complete record of public input can be found in the appendices to this report.

Previous Survey Efforts

As a part of the study, the team collected an extensive library of materials, some of which includes valuable public input on problems and needs within the study area. Most important are the various transportation surveys that have been completed under separate projects. The following list highlights the previous survey efforts the team examined to identify problems and needs.

- *Municipality of Anchorage Household Travel Survey (2002).* The Anchorage Metropolitan Area Transportation Study (AMATS) commissioned a travel behavior and origin-destination survey to obtain current information on household activity and travel behavior in the study area to develop and calibrate travel demand models for use in travel forecasting and air quality modeling.
- *People Mover Route Restructuring On-Board and Telephone Surveys. (August 2001).* Two surveys about ridership habits and the current local transportation market were completed as part of People Mover's plan to restructure Anchorage public transportation.
- *Anchorage Metropolitan Area Transportation Study (AMATS) Survey (Craciun Research Group March, 2001).* An Anchorage sample of the general public was surveyed regarding the transportation system. The DOT&PF commissioned the study, and its purpose was to assess public opinion about the major transportation issues affecting the MOA.
- *Wilbur Smith Associates and The Alaska Railroad Corporation Market Research Report (Craciun Research Group February 9, 2001).* The purpose of the study was to understand more fully the market potential of Matanuska-Susitna Borough residents' travel patterns, behaviors, and perceptions, as well as interest in a proposed commuter rail service to Anchorage.

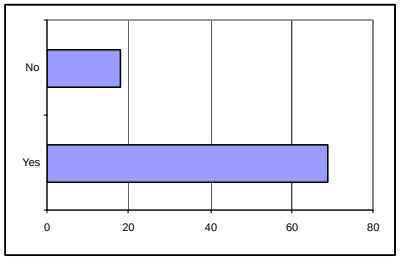
- *DOT&PF Marketing Research Report (Craciun Research Group November 30, 2000).* DOT&PF contracted the survey to assess public opinion in Alaska regarding the effectiveness of its work throughout the state.
- *People Mover On-Off Ridership Study – 2000 (Municipality of Anchorage 2000).* This study evaluated the effectiveness of the system by collecting ongoing ridership data between January 18-29, 2000 and March 14-25, 2000.
- *1996 Origin-Destination Study (Municipality of Anchorage 1996).* This survey obtained origin-destination trip patterns and other information to evaluate the effectiveness of the public transportation system's route structure and guide route changes to reconfigure route alignments, identify route opportunities for underserved major destinations, and delete duplicated services.

Comments pertaining to problems and needs provided by the public during these surveys are included in the comment summaries found in Sections 3.0, 4.0, and 5.0 of this document.

3.0 Roadway Problems and Needs

3.1 Roadway Problems

At a Glance: On-line Comments
Based on your experience as a user of the Anchorage transportation system do you believe that traffic congestion is a problem in East Anchorage? The table below reports your answers to this on-line question.



According to the AMATS 2001 Multi-Modal Transportation Survey, 66% of those surveyed believed Anchorage has a traffic congestion problem; 25% believe it is a "major" problem (AMATS 2001).

Introduction

As the background report (DOT&PF and MOA May 2002) discusses, Anchorage's road network carries the majority of our trips (92% to 96%). It is the primary network used for people traveling by private car and by public transportation. How well is this road network performing from the public's perspective? What do the residents feel are specific areas that need improvement? How well does the public's experience with the transportation system correlate with the analytical data? Issues articulated by the public that relate to problem areas in the road network are summarized below.

Roadway Congestion

According to traffic data summarized in the background report, traffic congestion occurs at a number of intersections and roadway segments throughout the study area, particularly where east-west and north-south traffic flow are attempting to use the same intersections at the same time. According to traffic data, this occurrence is most pronounced during the peak commuting hours, weekday mornings, and evenings.

For the most part, Anchorage residents concur that congestion at intersections and along roads in the study area is a problem. These people defined this problem in three general ways: too many vehicles on the roads, too few options for travel (see "Lack of Connectivity," below), and a lack of capacity on arterials used for through traffic. Some people noted that congestion does occur, but these people cautioned that it is not a problem—this view holds that delay along roads and at intersections is less of a concern than adverse impacts associated with increasing the footprint of the city's roads.

Reasons for congestion identified by the public were related to land use, including the growth in the number of trips that originate outside the study area but go through the study area, the distance and sprawl between our origins and our destinations and the associated difficulty of walking to and from these locations, and the conflicts inherent in using an arterial for both through traffic and for business access. Congestion was also associated with turning movements (left-turns onto arterials and turns into commercial establishments from arterials), and with certain types of vehicle activities (busses stopping in traffic, trucks slowing traffic). Congestion was also linked to summer construction and construction during peak travel periods.

At a Glance: Previous Survey Results

The AMATS 2001 public opinion survey of transportation issues found that

- Half (52%) of respondents claimed to use an alternate travel route because of traffic problems.

At a Glance: On-line Comments

What are the top 10 most-congested intersections or road segments? The list below provides a summary of your on-line answers in rank order starting with the worst.

1. *Lake Otis Parkway & Tudor Road*
2. *Dimond Boulevard & New/Old Seward Highways*
3. *New Seward Highway and 36th Avenue*
4. *Lake Otis Parkway & Northern Lights Boulevard*
5. *New Seward Highway and Northern Lights Boulevard*
6. *Tudor Road & Old/New Seward Highways*
7. *Glenn Highway & Bragaw Street*
8. *New Seward Highway & Benson Boulevard*
9. *Glenn Highway & Airport Heights Drive*
10. *Bragaw Street &Tudor Road*

Indirect Affects of Congestion

A number of problems identified by residents are related to the indirect effects of congestion. Such concerns included congestion restricting access and movement to and from adjacent neighborhoods; negative impacts to businesses along congested road corridors; compromised safety of drivers and pedestrians, including children walking to school; increased road rage; compromised emergency response times (to and from accidents/fires/hospitals); and compromised public transportation times.

Residents blame congestion and the increasing traffic on our roads as contributing to the use of "unauthorized" bypass or "cut-through" traffic in neighborhoods or heavy pedestrian areas like the University and Medical District. Specific examples included:

- 36th Avenue to McInnes Road (Tudor Road access)
- Lake Otis Parkway to E 42nd Avenue (Tudor Road access)
- Mountain View Drive and Airport Heights Drive (Glenn Highway at Merrill Field bypass)
- UAA Drive/Providence Drive/N Bragaw Street (through traffic cutting across University and Medical District)
- Fireweed Lane-LaTouche Lane (Northern Lights Boulevard-Benson Boulevard bypass)

Locations of Roadway Congestion

The locations where residents identified congestion concerns closely correlate with analytical data contained in the study's background report (DOT&PF and MOA May 2002). In general, the areas of concern were related to major east-west and north-south arterials, access to the University-Medical District. Residents often associated locations for congestion with times of day (morning and evening on commuting routes, particularly to and from Eagle River and Wasilla, and to and from the Hillside/South Anchorage area). Congestion was also identified at the military bases, and this was specifically related to delays getting on base due to increased security.

Many residents also identified specific locations of congestion by road or intersection. The Tudor Road/Lake Otis Parkway intersection and connecting road segments were noted as the outstanding problem area from all public involvement efforts. The following list highlights in alphabetical order the major road corridors noted by the public as problem areas.

- Abbott Loop Road/Abbott Road intersection and at Lake Otis Parkway.
- Airport Heights Drive (at Glenn Highway, Debarr Road intersection).
- Benson Boulevard (entire road, at New and Old Seward Highway intersections).
- Boniface Parkway (at Debarr Road intersection, at Northern Lights Boulevard intersection).
- Bragaw Street (entire road; at Northern Lights Boulevard, Tudor Road, Debarr Road, Glenn Highway, Mountain View Drive intersections).

At a Glance: On-line Comments

Which intersection or roadway do you feel is the most congested?

- Approximately 45 out of the 65 people who participated in the on-line questionnaire ranked Lake Otis Parkway/Tudor Road as the most congested intersection in the city.

At a Glance: On-line Comments

Which intersection or roadway do you avoid?

- Of the 62 people who answered this question on-line, 30 said they avoid the Lake Otis Parkway/Tudor Road intersection because of traffic congestion.

There appears to be a growing consensus that traffic congestion is a problem in East Anchorage, with Lake Otis Parkway and Tudor Road as the leading problem location.

- C Street (at Northern Lights Boulevard, Tudor Road, Dimond Boulevard intersection).
- Debarr Road (entire road; at Airport Heights Drive, Boniface Parkway, Bragaw Street, Turpin Road, and Muldoon Road intersections, entire road to Gambell Street).
- Downtown.
- Dimond Boulevard (southbound exit ramp, at Old Seward and New Seward Highway intersections, C Street intersection, Victor Road intersection [outside the study boundary]).
- Dowling Road (at New Seward and Old Seward Highway intersections, entire road, at Lake Otis Parkway intersection).
- Fireweed Lane (at Seward Highway).
- Glenn Highway (entire road; East 5th Avenue between 4:30 and 6:30 pm; at Seward Highway intersection; at Merrill Field; at Reeve and Concrete Boulevards, Airport Heights Drive, Bragaw Street, and Muldoon Road intersections).
- Huffman Business Park.
- Lake Otis Parkway (entire road, road during afternoon rush, north of Tudor Road, at Tudor Road intersection, at Abbott Road, at Northern Lights Boulevard intersection, at 15th Avenue, at Dowling Road intersection).
- Minnesota Drive (at Spenard Road, Tudor Road, and Northern Lights Boulevard intersections).
- Muldoon Road (entire road, at Debarr Road intersection, at Glenn Highway intersection).
- Northern Lights Boulevard (at C Street intersection, at Lake Otis Parkway intersection, at New Seward Highway intersection, at Bragaw Street intersection, at Boniface Parkway intersection, eastern segment, at Minnesota Drive intersection).
- New Seward Highway (at Dimond Boulevard intersection, Dowling Road intersection, Tudor Road intersection, north of 36th Avenue, between 36th Avenue and Fireweed Lane, at Fireweed intersection, at 36th Avenue intersection, at Northern Lights intersection, at Benson Boulevard intersection, between Bragaw Street and New Seward Highway, at Glenn Highway intersection).
- Old Seward Highway (at O'Malley Road intersection, Dimond Boulevard intersection, at Tudor Road intersection, at 36th Avenue intersection).
- O'Malley Road (at Old Seward Highway intersection, near Commodore Street).
- Tudor Road (entire road, road during afternoon rush, west of Boniface Parkway, between C Street and Lake Otis Parkway, at C Street, at Bragaw Street intersection, at Old Seward and New Seward Highway intersections, at Lake Otis Parkway intersection, at Minnesota Drive).
- Turpin Road (at Debarr Road).
- UAA Drive-East Northern Lights Boulevard area.
- Victor Road (at Dimond Boulevard intersection [outside the study boundary]).
- 15th Avenue (at Gambell Street, at Lake Otis Parkway).
- 36th Avenue (at New and Old Seward Highway intersections, between New Seward Highway and Tudor Road).

Residents commented that the lack of connectivity in our arterial and collector street network contributes to our congestion problems.

Lack of Connectivity

Some people commented that Anchorage's lack of a complete road grid is a problem, noting that the number, size, location, and classification of roads has not kept pace with Anchorage's population. The three categories of comment related to a lack of connectivity in the road system are as follows:

- There is a lack of major north/south routes east of the New Seward Highway, as Lake Otis Parkway, Bragaw Street, Boniface Parkway, and Muldoon Road come to dead ends.
- There is no true expressway or freeway (without stops at intersecting streets) through Anchorage.
  - There is an indirect connection between the Glenn and Seward Highways.
  - There is no bypass route around the city.
- There is a lack of roads in general.
  - There is a lack of alternative routes when roads are closed or restricted by maintenance, construction, or other emergencies. A related comment is that a truck route/hazardous materials route is needed.
  - Lack of connectivity hampers the Anchorage School District, People Mover, and emergency services personnel service to certain areas.

Others commented that Anchorage's incomplete road grid is not a problem. Four categories of comment related to this point are:

- There is not a problem with congestion and therefore no need to build more roads.
- Congestion problems would be better served by enhancing public transportation and changing land use.
- Congestion problems would be better served by reinvesting and enhancing existing road corridors.
- The lack of road connections has the positive result of protecting and preserving neighborhoods, open spaces, and wild lands.

Lack of Alternative Modes of Travel

Some people noted that the overriding problem with our roadway network is that there is a lack of incentive to develop other modes of transportation.

Public Safety

Problems with the existing road network were related to concerns about public safety, and these comments can be organized around four major themes: vehicle accidents, pedestrian and vehicle accidents, delays in emergency response times; and access difficulties.

- Vehicle accidents were linked to areas of high traffic volumes and dual uses (through traffic and business and residential access), as well as to high speeds and specific vehicle movements (merging, turning on red lights, left turns).

- Pedestrian and vehicle conflicts were linked to a lack of separation between vehicle traffic and pedestrian traffic (walking, biking). The University-Medical District was noted as an area with serious pedestrian/vehicle conflicts. People also noted that children's safe access to schools is hampered by arterials and lack of safe walking routes.
- Delays in emergency response times were related to too many vehicles on the road, too few routes to travel, and the conflicts caused by too many uses (such as through-traffic and business/neighborhood access). It was noted that in many cases gridlock makes travel by emergency vehicles impossible.
- Difficulty accessing areas was also linked to the number of subdivisions and/or roads that have only one point of egress and ingress.

Traffic Signals and Signs

Another area of concern is related to traffic signals and signs. People commented that traffic signals are not synchronized well area-wide. Specific examples of poorly timed lights are lights along the Old and New Seward Highway, along the Glenn Highway, at Pine Street and Debarr Road, and at Wesleyan and Northern Lights Boulevard. Some noted that many traffic lights are unnecessary at night, when traffic volumes are very low. Some advocated the use of additional stop signs to slow traffic, particularly along cut-through routes, while others noted that there are too many stop signs.

Residents expressed that they value a mix of urban amenities, wildlife, open space, and trails. The balance between these values is a key issue.

Construction Delays and Maintenance Problems

Construction delays and maintenance problems were other noted problem areas. It was noted that poor road conditions (potholes, poor lane lines) and poor construction timing and detour routes impede efficient traffic movement. People also noted these problems as a symptom of a lack of connectivity and alternate routes.

Environmental Concerns

Diesel fumes and dust were noted as air quality problems. People voiced general concern about the degradation of air quality throughout the Anchorage Bowl, but specific areas of concern were located at the Anchorage School District Bus Barn at Bragaw Street/Tudor Road, as well as other locations along Tudor Road. Other environmental problems related to the road network included:

- Continued building of new systems that destroy, fragment and degrade natural resources (e.g., habitat) and functions (e.g., water quality, flood control).
- Poor stream crossings (blocked, undersized, perched culverts).
- Nonpoint source pollution of waterways from runoff on streets and parking lots (e.g. oil, gas, etc.).
- Wetland fills that degrade or destroy habitat.
- Dangerous human-made wildlife crossings.
- Reduction in wildlife habitat connectivity between large parks and along waterways.

- Improper construction and inadequate maintenance of systems that further degrade natural resources (e.g., water quality, fish passage, maintenance of hydrology).
- Infrastructure development that induces industrial/commercial/residential development of adjacent or accessible parcels and adds to cumulative impacts.
- Water quality and trash problems from snow dumps.

3.2 Roadway Solutions

Introduction

Solutions to transportation system problems ranged from building new facilities, to enhancing public transportation and carpooling options, to changing land uses. Some people advocated a mix of these strategies, while others supported only one mode of fix. Ideas for solving transportation problems in the study area are summarized below.

Build New Connections

One category of roadway solutions involves building new roads. Suggestions for new roads include Bragaw Street extension south and north, Boniface Parkway south, Muldoon Road south, Dowling Road east and west, C Street and Arctic Boulevard south, Elmore Street from Huffman Road to Rabbit Creek Road, and Gambell/Ingra Streets across Knik Arm. To minimize impact to parkland and/or neighborhoods, suggestions were made to elevate or tunnel some roadways.

Grade separations are one type of solution to congestion suggested by Anchorage residents.

Another category of suggestions for new connections involves building new connections between existing roads to form an expressway/freeway. Suggested routes for an expressway/freeway included along the Glenn and Seward Highway corridor, along the Glenn Highway/Minnesota Boulevard corridor, along 36th Avenue and into Downtown, parallel to Tudor Road (to allow Tudor Road to continue to provide direct access to businesses), along the Muldoon/Tudor Road corridor to the airport, along International Airport Road to the New Seward Highway, and from the Glenn Highway to South Anchorage. The need to coordinate new transportation facilities with utilities was also mentioned.

Build Additional Grade Separations

Building interchanges at intersections to separate north-south and east-west travel was another roadway suggestion. Specific areas mentioned as needing overpasses/underpasses, cloverleafs, or some other form of improvement to separate grades included:

- Tudor Road at Lake Otis Parkway, New Seward and Old Seward Highways, and C Street.
- New Seward Highway at Tudor Road, International Airport Road, 36th Avenue, and Northern Lights Boulevard.

Other suggestions included constructing grade separations at all railroad crossings, and improving the access ramps on the New Seward Highway.

At a Glance: Previous Survey Results

The AMATS 2001 public opinion survey of transportation issues found that

- *60% of respondents wanted more lanes on roads*
- *27% wanted to remove on-street parking to provide another travel lane*
- *32% supported making more one-way street pairs*
- *26% supported prohibiting left turns at some intersections*

Redevelop or Add Capacity to Existing Roads

Instead of or in addition to developing new road connections, another thought was to better invest in current roadway corridors. The following strategies were noted:

- Add more lanes to major arterials.
- Construct roadway tunnels.
- Double deck lanes on any high volume streets (New Seward Highway, Benson, and Northern Lights were targeted as examples).
- Upgrade road classes on some major routes and better design these routes for both through traffic and for business access, perhaps by creating frontage roads.
- Develop one-way arterials and/or reversible lanes (dedicated and/or reversible depending on time of day).
- Use center turn lanes as an additional lane during peak travel times.
- Add high-occupancy vehicle lanes.
- Construct more bus pull-offs so buses do not stop traffic.

No-Build Concepts

Another category of roadway solutions ran counter to the ideas of building or expanding roadways. Some noted that improved public transportation or a commuter rail system would be effective alternatives to paving more of the city. Others suggested that the road network or demand on the network could be managed through system management or demand management techniques. Examples of ideas included shifting working hours, telecommuting, increasing incentives for public transportation, and van and car pooling (especially for travelers from Eagle River and the Matanuska-Susitna Borough), and installing computerized traffic monitoring equipment.

Anchorage 2020 Town Centers hold promise for reducing the growth rate of automobile trips by creating walkable areas with housing and services in close proximity.

People also suggested that by creating mixed land-use developments (like the "Town Centers" called for in the Anchorage 2020 Comprehensive Plan, where places of employment, residences, and shopping are in proximity), the city would become less dependent on the automobile. This would, in turn, make road expansion unnecessary. Another suggestion was to decentralize or relocate services and facilities, such as the People Mover bus barns and the Anchorage Police Department, to reduce congestion affects in some areas like Lake Otis Parkway and Tudor Road.

Design Safer Roads

It was noted that engineering safer roads would not only save lives, but also improve traffic flow.

At a Glance: Previous Survey Results

The AMATS 2001 public opinion survey of transportation issues found that most people (67%) would provide better coordination of traffic signals if they were head of transportation for a day.

Examples of this type of re-engineering included providing separated pedestrian crossings, widening the New Seward Highway to facilitate merging traffic, enforcing use of the slow lane, prohibiting right-on-red turns, prohibiting cut-through routes to major arterials, reducing the number of lanes on some roads like Spenard Road and Fireweed Lane, and providing separated pedestrian routes. Development of alternative routes into the university-medical area to lower speeds and provide a campus-type atmosphere (with complementary pedestrian and bike routes) was suggested.

Manage Traffic Signals Better

Another category of solutions related to traffic signals. Suggestions included better synchronization of lights to keep traffic moving, replacing stop lights with stop signs at low volume streets, incorporating "smart signal" technology to better respond to specific needs at intersections, lengthening signal times for turn lanes during peak hours, and eliminating left turns during peak hours.

Manage Construction Better

People suggested better construction timing to avoid peak travel periods, better use of detours during construction, and quicker construction periods.

Maintain Existing Roads

Other solutions included the use of better, longer-lasting road materials and more road maintenance, particularly during the winter. There is considerable concern that we do not maintain the roads we have.

Incorporate Environmentally Friendly Designs

The following needs were identified to protect the environment:

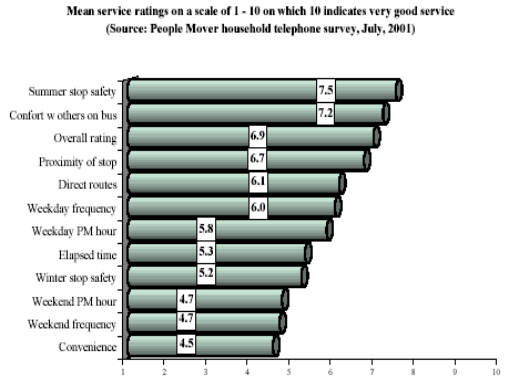
- Fish passage problems: replace problem culverts with new culverts or bridges. For stream crossings, bridge when possible.
- Nonpoint source pollution: divert water through ditching and through bio-swales before entering streams to remove pollutants and decrease sedimentation from runoff.
- Use Best Management Practices (BMPs) during construction. Bridge when possible rather than using culverts. If culverts are used, use a bottomless arch and be sure the size is adequate for the stream. Consult with hydrologist/fish biologist. Fit structures to the stream – not vice-versa – attempt to not re-channelize the stream.
- Take into account wildlife movement (songbirds, raptors, other land birds, shorebirds, foxes, lynx, weasels, mink, moose, etc., and anadromous fish) and crossings in transportation planning.
- Consider the air quality impacts of transportation solutions, including specific consideration of areas that are prone to inversion and low winds in the winter.

4.0 Public Transportation Problems and Needs

4.1 Public Transportation Problems

At a Glance: Previous Survey Results

How do residents feel our public transportation system is doing? People Mover reports the following service ratings in its restructuring plan.



The lower scores in this graph reflect areas where respondents felt service was poorer. Connections, weekend frequency, weekend service hours, winter stop safety and maintenance, and the time needed to complete the trip are all problems that were also identified through EAST public outreach.

Introduction

As the background report (DOT&PF and MOA May 2002) discusses, approximately 1% to 2% of trips are currently made on public transportation. What problems do Anchorage residents feel need to be resolved to improve our public transportation system? Issues articulated by the public that relate to problems with the existing transit system are summarized below. Views expressed in the on-line questionnaire (through July 2002) and other sources are depicted in the left-hand margin.

Lack of Service Frequency

One major theme regarding problem areas in the public transportation system is frequency of service. The comprehensive plan recommends 15- to 30-minute headways by the year 2020, and this goal has been adopted by People Mover. People commented that they would use public transportation more if service were more frequent. Others, however, noted that riding a bus does not allow enough personal freedom to change one's travel schedule, and therefore would not use public transportation more even if service were more frequent. Specific problems noted with the existing service include a lack of:

- Early pick up hours (5:00 am)
- Weekend and evening service
- Updated (real-time) information on bus schedules

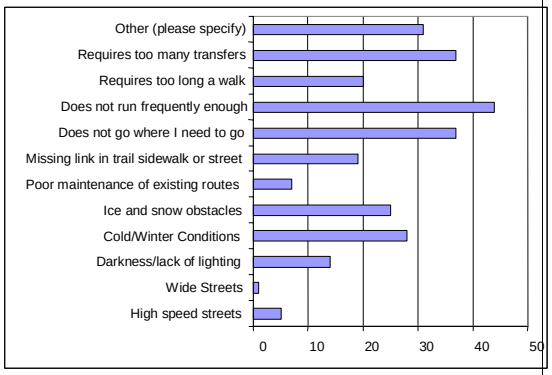
Inconvenient/Lack of Transfers, Connections, Routes

Another category of comment pertained to transfers, connections, and routes. A lack of routes (north/south and east/west), and a lack of direct/express routes were noted as problems. Specifically mentioned missing links in the street network included areas near Spruce Street, 68th and 64th Avenues, areas off Lake Otis Parkway and Abbott Loop, and areas between Muldoon Road and Chugach State Park.

The inconvenience and time needed for bus transfers was noted as a problem, as was the lack of bus hubs or transit centers. Some suggested that existing hubs are not located in the correct areas of town.

At a Glance: On-line Comments

What are the biggest barriers to using public transportation in Anchorage?



"Other" included:

- No service
- Not safe getting to the bus stop
- Takes too long
- Too lazy
- Inconvenient hours - esp. weekends
- Need car for work
- Don't know how it works
- Doesn't fit my schedule
- Inconvenient
- Don't want to
- Bus seating is too cramped
- Lack of mobility during the day
- Too costly
- Passengers are weird, self-security
- Roads & parking are subsidized

Specifically mentioned underserved areas included the Airport, the Hillside, and the Jewel Lake and Dimond areas. Specifically mentioned underserved populations included the economically disadvantaged, the physically and mentally handicapped, and the elderly. It was noted that the handicapped and the elderly would benefit from more door-to-door service such as provided through AnchorRides. The required advanced booking to use AnchorRides was noted as a problem.

People also noted a lack of a feeder bus service as a problem. People suggested that more routes could be added if smaller busses would go into neighborhoods and then provide a connection at a transportation hub.

Incomplete Pedestrian Networks

People commented that many transit stops are not connected to sidewalks or paths in some neighborhoods, so access to transit stops is difficult or unsafe. People also commented that in many cases, the distance between transit stops and businesses is not walkable. In areas of town, large parking lots separate the bus rider from his or her destination. These lots make the travel distance too great for the elderly, the handicapped, or for shoppers carrying purchases. Safety of people traveling through these lots was also noted as a concern, particularly in the winter. People also noted that traveling between bus stops or destinations often requires traversing many lanes of traffic.

Maintenance & Access to and at Bus Stops

Another category of comment was associated with design and maintenance of support facilities. People noted that in many cases poor maintenance of trails, sidewalks, and paths, as well as poor snow removal, were physical barriers or safety concerns affecting the ability to access transit stops. People noted that noise fences along major arterials prevent people from taking full advantage of public transportation.

Bus Stop Location and Design

Bus stop amenities also elicited comment. People noted that bus stops need to be safer and more comfortable in inclement weather. Some noted that stops on major roads are safer because riders are in the public eye (a discouragement to a physical threat), while others noted that stops away from major roads decrease the potential for vehicle/pedestrian accidents. People also noted the need for bus pull-offs to decrease traffic congestion and increase traffic safety, as well as schedules posted at all locations.

Poor snow maintenance on sidewalks and around bus stops was identified as a barrier affecting transit use.

Land Use Affect on Transit

Some people noted that the greatest barrier to increased public transportation ridership is Anchorage's existing land use. People noted that the separation of land uses, such as the distance between residential areas and employment centers, creates a transportation pattern that is auto-dependent because it requires too many transfers or too much time. Using and providing public transportation is difficult when riders need to travel from many origins to many destinations. Some people noted that even if a convenient route between work and home exists, travel to destinations (needing personal mobility) during the day by public transportation is difficult.

Inadequate Funding

People also noted insufficient funding for operations and maintenance, as well as for capital improvements as a major stumbling block to public transportation. People noted that if public transportation were funded as heavily as roadways, the city would have an excellent public transportation system.

4.2 Public Transportation Solutions

Introduction

The public transportation solutions noted below span a wide range. Some of these solutions were offered as parts of a package of improvements, while others were offered as the only solution needed. Some people believe that when Anchorage has better service, it will have more riders. This view holds that the riders are there waiting for service. Other residents believe that public transportation is an important element of the entire transportation network, but that it will not be the primary mode of travel for the majority of residents. Solutions below also include pedestrian improvements because good designs for pedestrians are good design for transit. After all, every transit trip begins and ends with a pedestrian trip.

People suggested that good, attractive bus stops are important for encouraging people to use the bus.

Construct Bus Stops

People suggested that the city prioritize the construction of heated (perhaps solar heated) shelters and transit centers, particularly along high-traffic bus stops. Suggested locations included along Lake Otis Parkway and Dowling Road. People also noted the need to construct more bus pullouts.

Upgrade Bus Tracking Information System

Another category of improvements suggested the need for real-time schedule updates, with the use of closed-circuit TVs, the global positioning system, and a phone system with updated estimated times of arrival.

Data At A Glance

People Mover's plan for the future includes the following improvements:

- 30-minute frequencies all day on weekdays on all routes, an improvement over the current 60-minute standard.
- Community circulator service in the lower demand, low-density areas.
- Later operating hours on weekdays.
- Earlier and later operating hours on weekends.
- More direct and express routes, including a new cross-town line from Muldoon to Providence and on to Dimond.
- Two new transit centers in the Muldoon and university-medical area.
- A "pulse service" whereby busses arrive at the same time so transfers are efficient.

--People Mover Route Restructure Plan (August 2002) and EAST Brown Bag Lunch on Public Transportation (6-19-02)

Improve Access to Bus Stops

Suggestions for improved access to bus stops included better snow removal to, from, and at bus stops; requirements for separated sidewalks in new and rehabilitated developments; requirements for a maximum of 50 feet distance between sidewalks and new store fronts; more higher-density housing within ¼ mile of a route; more sidewalk construction in older neighborhoods; and more and better connected pedestrian routes to bus stops.

Develop More Transfer Hubs

Many people suggested the development of more transfer hubs. Suggested locations for hubs included at the University of Alaska Anchorage, Alaska Pacific University, Northway Mall, and the planned Town Center areas. The use of smaller feeder buses to branch out to more areas is part of this suggestion. With the use of smaller buses, it was suggested that more people could be served closer to their points of origin. This system was noted as particularly important to the elderly and the disabled.

Add New Routes

The development of more routes was suggested. Locations for additional routes included into residential areas, on east-west and north-south corridors, to and from the Matanuska-Susitna Valley, to and from the airport, within the military bases, and looped systems that come together in the middle of the city. More direct routes to employment centers and the University-Medical District were also suggested.

Provide Bus Signal Preemption and Bus Lanes

One category of potential solutions dealt with helping to increase transit times. Suggestions included allowing busses to have signal preemption traffic lights. Others suggested the use of dedicated bus lanes. Such improvements were meant to help People Mover maintain its schedules and improve travel times.

Establish Public Education Campaign

Some people noted that the community would benefit from a public campaign to educate people about the benefits of traveling by bus and how the system works. People suggested this campaign could target young people to establish this traveling choice early in life.

Develop More Car/Vanpool to Employment Centers

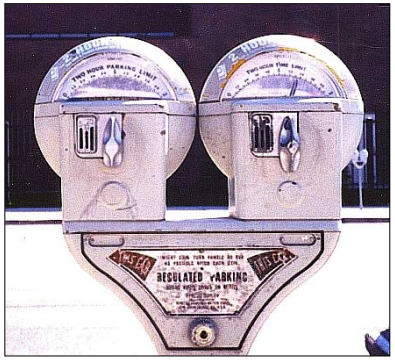
Another comment offered vanpools and carpools as a solution to public transportation with great promise. This suggestion is based on the thought that our land use requires a system serving many origins and many destinations where vanpools would be most efficient. A suggested vanpool destination was the Ted Stevens Anchorage International Airport.

Alter Schedule

Suggestions pertaining to scheduling included reducing the advance notice required for AnchorRides, starting scheduled service earlier (5 am), and adding additional evening and weekend service.

Develop a Light-Rail or Subway System

Some people commented that the public transportation system should be a light-rail or rail system. Ideas for routes included within the city and to and from the Matanuska-Susitna Valley. The opposing view noted that studies have examined light rail, and these studies have suggested that Anchorage's housing density is not adequate to make this service cost effective. This view holds that we should start with improving our bus service and that as density and demand builds, light rail and rail would become more feasible.



The control of parking pricing and supply of parking was a tool suggested for creating disincentives to single-occupant vehicles.

Create Incentives for Taking Public Transportation or Disincentives to Single-Occupant Vehicles

This category of improvements relates to suggestions to increase public transportation ridership. Ideas mentioned by Anchorage residents include tax breaks for businesses that promote ridesharing and transit use. Other ideas included incentives for vanpoolers in the form of reduced registration tags or the use of a high-occupancy vehicle lane, as well as incentives for bus riders in the form of reduced fares. Ideas for disincentives include gas taxes, high parking fees, and limits on parking spaces to encourage people to choose alternate modes of travel including transit.

Increase Funding for Public Transportation

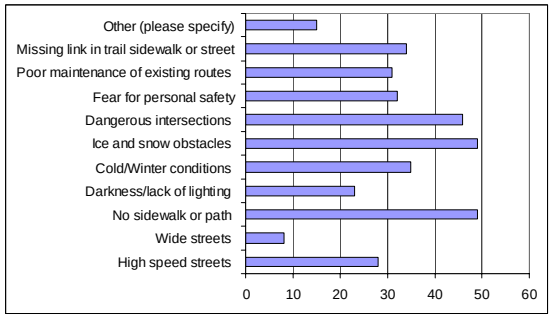
Another suggested solution to enhance ridership city-wide is to increase funding for public transportation. Ideas for achieving this goal included creating a stable funding system that is not tied to politics, raising the gas tax and using this money as a funding source, and instituting a progressive property tax based on housing density.

5.0 Pedestrian and Bicycle Problems and Needs

5.1 Pedestrian and Bicycle Problems

At a Glance: On-line Comments

What are the biggest barriers to walking/biking in Anchorage?



"Other" included:

- I love driving myself
- The walk signal times need to be longer
- Vehicle needed at work
- Condition of paths/sidewalks/streets
- Lack of mobility during the day
- Need more unobstructed routes e.g., greenbelts and trails
- Poor north south routes
- Dangerous drivers
- Roads and parking are subsidized
- Lots of traffic is intimidating

Introduction

As the background report (DOT&PF and MOA May 2002) discusses, pedestrian systems need to be interconnected, located near and connected to major traffic generators, and provide amenities that encourage people to use them. What are specific areas that need improvement? Issues articulated by the public that relate to problems with existing trails and sidewalks are summarized below. Views expressed in the study's online survey (through July 2002) are depicted graphically in the left-hand margin.

Missing Trail and Sidewalk Links

A predominant theme in many comments was the lack of connectivity of bike paths and sidewalks. Some of the missing links are listed below:

- Fragmented north/south trails.
- Lack of trails/sidewalks (to and from the Muldoon Road area, Hillside area, within and to/from University-Medical District).
- Dead-end trails (paved route that that terminates at the Tudor Road Pedestrian Overpass, Glenn Highway Parallel Trail terminates at Boniface Parkway, Coastal Trail terminates at Kincaid Park).
- Fragmented sidewalks (in general, along Tudor Road).
- Lack of sidewalks (in general; in the Hillside area; in neighborhoods like College Gate, College Village, Rogers Park).
- Lack of connecting sidewalks from residential to main streets.
- Lack of sidewalks/trails to connect neighborhoods with schools (without reliance on the arterial streets which are often considered unsafe).

It was noted that we end up paying more for school bussing in areas where kids could be walking, but the routes are unsafe or nonexistent.

Concerns About Pedestrian-Vehicle Conflicts

Many people voiced concern about the limited separation distance between roads and bike paths. Some thought this was a flawed design concept, and advocated more distance between the two uses. Others believed that bike lanes along the roadway or shoulder could work for biking commuters if they were clearly marked and policed. People noted that existing shoulder widths are too small for such a use and that the rumble strips further compromise biking safety. Most people noted that this system would not be appropriate for children on bikes or for walkers.

Missing, poorly maintained sidewalk along Dowling Road. *Poor maintenance and missing links make sidewalk use unsafe and act as barriers to its use.*

Poor snow maintenance and the use of sidewalks to store snow were identified as barriers for pedestrians.

People also noted concern about pedestrian road crossings. People noted that the crosswalk signals are too short, and that it is difficult for drivers to see pedestrians at night or during our dark winters. People said that more dedicated crossings were needed throughout the city, particularly on arterials and for access to businesses. Specific examples of locations for elevated pedestrian crossings included Seward Highway at 92nd and 76th Avenues, and at Lake Otis Parkway and 42nd Avenue. On the other hand, some residents said over crossings are not used if a more direct route is available.

Concern about Personal Safety

People also voiced concern for the personal safety of walkers and bikers in the community, noting instances of personal attacks on area sidewalks and trails.

Lack of Signs

Another problem noted with the pedestrian and bicyclist network is the lack of trail maps, trail locators, and signs on the trails to help navigate.

Land-Use Design Problems

People noted that low-density development patterns (sprawl) and the distance between land uses make trail and sidewalk travel difficult. Also noted were subdivisions without connectivity to an adjacent subdivision.

Poor Trail and Sidewalk Maintenance

Poor maintenance was noted as another deterrent to travel by foot, bike, or bus. The leading maintenance concern was a lack of snow removal or poor methods of snow removal. Some mentioned that the winter trails are maintained only for skiing, not walking or biking, and this causes a problem. Others noted that the problem was the lack of useable sidewalks and trails in the winter due to these areas either not being cleared or being used for roadway snow storage. People suggested that pedestrian and biking routes must be maintained year-round (as they are in other northern communities) to encourage this mode of travel, and, by extension, bus travel. Many noted that trails and sidewalks have upheavals, cracks, and potholes. Others noted that garbage along routes was a problem.

Lack of Funding

Another category of comment was the lack of financial commitment to bicycle and pedestrian transportation networks. People noted that pedestrian and bike paths should not be an afterthought on projects, and that money set aside for pedestrian uses should be used for pedestrian facilities.

5.2 Pedestrian and Bike Solutions

Bus stop with dirt path along Muldoon Road. *Residents noted that poor sidewalk connectivity limits the use of this mode of travel and hampers the connection to transit facilities.*

Introduction

The public outreach effort identified a number of solutions for improving problems with the pedestrian and bicyclist network, which encompasses our sidewalks, paths, and trails. The list of ideas below (in no particular order) spans a range from constructing new facilities, better maintaining older facilities, and implementing policies and procedures for encouraging people to use this transportation mode more regularly. These improvements were generally noted as being part of a package of improvements. The need for these improvements was linked to the efficiency of the transportation network, as well as to quality of life issues.

Dedicate More Funds

People noted that one solution would be to fund and promote biking and walking to the degree that driving is funded and promoted. Others advocated that during new road construction, federal money that is set aside for pedestrian and bicyclist networks should be completely used for that purpose. Still others noted that too much money is spent on trail and sidewalk systems that few people use. A related suggestion was increased funding for snowplowing on sidewalks.

Construct More/Better Connected Trails

People commented that better trail connections are needed between existing trail networks, between exiting trail networks and roads, and between south trails and north and east trails. Specific locations of trail connections are listed below.

- Chester Creek Trail to Campbell Creek Trail, via APU University Lake Park.
- Chester Creek Trail to Muldoon Town Center via Cheney Lake and Chester Valley School.
- Glenn Highway Parallel Trail to Coastal Trail at Mountain View.
- Muldoon area to Hillside via powerline trail, to Hilltop Ski Area, to the Hillside.
- Fort Richardson to the Bowl via Centennial and Bicentennial Parks.

Construct More/Better Connected Sidewalks

People also commented that a complete sidewalk network on all arterial and collector road networks is needed and more sidewalks are needed in neighborhoods, particularly near schools. People noted that sidewalk development should be required when streets are upgraded, when subdivisions are developed, and where public transportation facilities are located.

Sidewalk along Boniface Parkway. *The public suggested that an inadequate separation distance creates safety concerns and causes paths to be used for snow storage, limiting their safe use for travel.*

The public suggested that amenities constructed in conjunction with sidewalk improvements are needed to encourage use.

Grade Separate Pedestrian and Vehicle Crossings

Pedestrian overpasses were highlighted as a need on major through routes like the New Seward Highway and the Glenn Highway, major north-south and east-west arterials, and major intersections. A need for pedestrian overpasses was also noted as a need between subdivisions and at school crossings. (Pedestrian underpasses were sometimes associated with personal safety problems.) On the flip side, it was noted that over-crossings are not always used where more direct routes exist.

Increase Separation Distance Between Trails/Sidewalks and Roads

Greater separation between roads and trails/sidewalks was suggested. Ideas for separating these uses included installing planter strips between the road and the pedestrian route, creating frontage roads on which pedestrians could travel more safely, and protecting existing greenbelts for development of future bike and walking paths. Greater separation was advocated to improve safety and allow for snow storage without obstructing the pathways.

Construct More Bike Lanes

It was noted that a "system" of on-street bikeways and facilities should be developed. Some noted a need to increase the number of routes with bike lanes, noting that with adequate shoulders, visible lane lines, and no rumble strips, these facilities could be effective and safe for biking commuters. People noted these routes tend to be more conducive to commuter biking than sidewalk systems.

Promote Pedestrian Travel Through Changes to Land Use

Changes to land use were also linked to the development of an effective pedestrian transportation network. The development of high-density, mixed development along transit corridors and at town centers was noted as a critical component of encouraging people to walk to their destinations. The establishment of employment centers with nearby restaurants, shopping centers, and other service industries was noted as a way to decrease the city's dependency on auto travel. Disincentives to driving such as limited or high-cost parking were also noted important to encourage people to walk or bike.

Design Pedestrian-Friendly Amenities

To promote use of pedestrian facilities, pedestrian-friendly amenities, such as covered walkways and heated sidewalks, were suggested. These features were specifically suggested in the Downtown area. Other ideas included better landscaping, wider paths, lighting, and a commitment to maintaining our facilities.

The public suggested that separated paths allow for snow storage and safety. Good signage was also suggested as a need.

Increase and Improve Maintenance and Snow Removal

Increased snow removal on trails and sidewalks was one of the most common suggestions. Snow maintenance needs included plowing/grooming snow from pedestrian routes quickly and frequently after each snowfall, and the need to avoid using pedestrian routes as a dump for road snow.

Some people noted that groomed ski trails are not conducive to walking/biking and would rather have routes completely cleared of snow. Others noted that groomed trails are either needed for skiing (commuting and recreation) or adequate for walking/biking.

Establish Public Education Campaign

Another area of improvement is public education. Some people indicated that the community would benefit from a public campaign to educate people about the benefits of not driving, much like the "plug-it-in" campaign educates drivers about the benefits to air quality from using an engine-block heater. Others mentioned a need for a public education campaign on driver/pedestrian safety. Still others noted a need for trail etiquette programs for pedestrians and bicyclists. Safety training was another suggestion to minimize vehicle-pedestrian conflicts. Another public education campaign idea was a program to remind people that the winter-use ski trail system is not just for recreation, but also for commuting and shopping. The campaign could also emphasize the health benefits to a community that supports biking and walking.

Miscellaneous

Other ideas for encouraging people to walk or bike and protecting the safety of these travelers are listed below

- Put stop signs at all intersections of trails and roads.
- Add maps and direction signs.
- Require lights on bikes at night.
- Ticket bikers for violations.
- Develop an MOA security program.
- Post trail maps in key locations, like trail heads.
- Increase police bike patrols.

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